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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/525,731	02/28/2005	Jean-Marc Galewski	01435.0204	8298

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EXAMINER

BOYKIN, TERRESSA M

ART UNIT PAPER NUMBER

1711

DATE MAILED: 10/23/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

10/525,731

**Applicant(s)**

GALEWSKI ET AL.

**Examiner**

Terressa M. Boykin

**Art Unit**

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 28 February 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 February 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>2-28-05</u> . | 6) <input type="checkbox"/> Other: _____  |

**35 USC 112, Second Paragraph**

**Claims 2-8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.**

The recited "preferably", renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

**Claim Objections**

Claims 4- 8 are objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claims 9-16. See MPEP § 608.01(n ).

**Claim Rejections - 35 USC § 102**

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

**Claims 1-16 are rejected under 35 U.S.C. 102(b, or e) as being anticipated by USP 6124426 (EP0905149) see abstract, cols., 1-4 and figure 1; or EP 1084739 see abstract and figure 1.**

**USP 6124426 (EP 0905149)** discloses a Volatile residues up to 2 wt.% are removed from polymers by adding a blowing agent in such a way as to ensure good mixing with the polymer, mixing in a static mixing apparatus and extruding into a devolatilizing tank. Temperature and pressure of blowing are controlled by monitoring a control coefficient. The blowing agent is discharged in contraflow to the polymer and the mixture is passed through a static mixing apparatus at a temperature higher than the vaporization temperature of the blowing agent at normal pressure, but lower than the decomposition temperature of the polymer and at such a pressure as to prevent blowing. The mixture is then extruded vertically into a devolatilizing tank and the polymer made into a blown product at a temperature and pressure such that, as defined by the expression  $B = A'/A$ ; wherein:

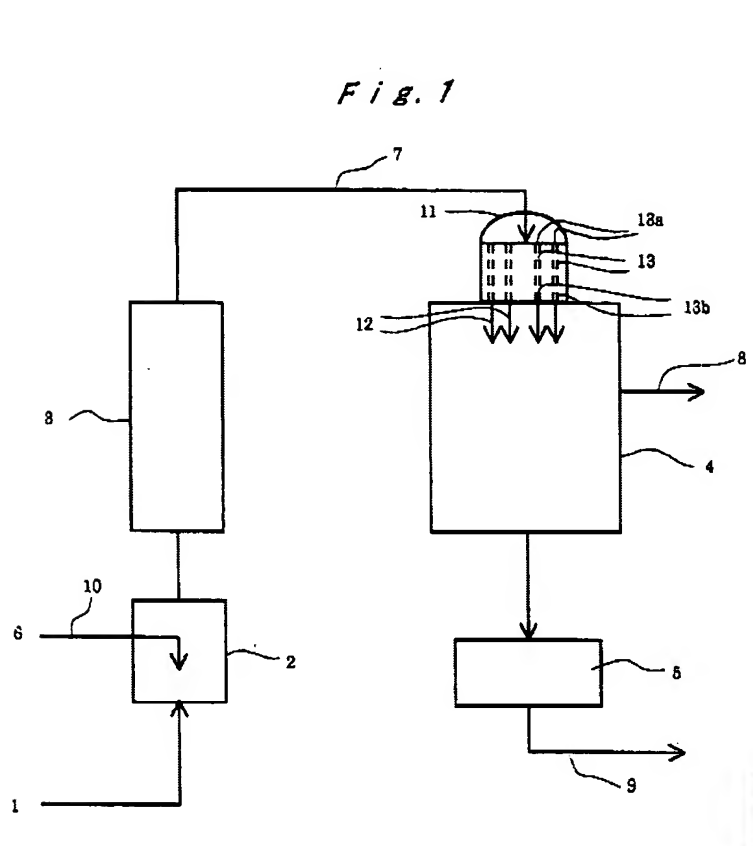
A = cross-sectional area of an opening in the extruder

A' = average cross-sectional area of the blown polymer composition perpendicular to the vertical direction of the blown polymer composition at the point 50-100 cm below the opening.

the blowing coefficient B is 1.4 or more.

The process is used for the removal of residual monomer and solvent from polymers. Using the method allows for the reduction of residual volatiles to 82 ppm or less. A devolatilization pressure of 10 mmHg or more can be used which prevents freezing of the water during its recovery by condensation. Deterioration of the polymer can be prevented by the use of lower operating temperatures.

Figure 1 is a diagrammatic representation of the apparatus:

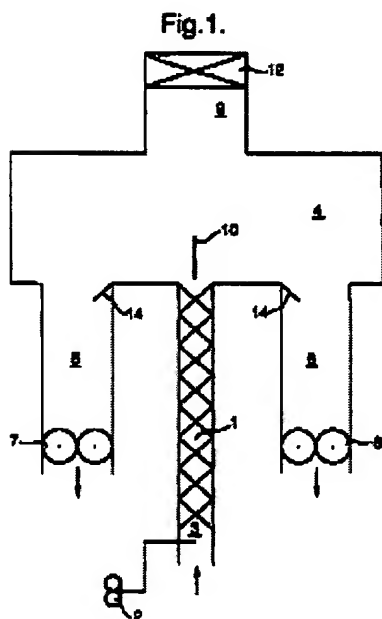


The reference **EP 1084739** discloses the devolatilization of molten polymer is carried out using a vertical static mixer (1) which opens directly into a flash tank (4). Expansion of a stripping agent injected at an inlet of the static mixer occurs in the static mixer and the continued shearing causes disengagement of the vapor from the polymer, so that expansion is complete before the polymer enters the flash tank (4) and stripper and volatiles are removed by a pump and condenser arrangement (12) which holds the flash tank at a reduced pressure. Polymer outlets (5,6) are in the floor of

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the flash tank and have metering pumps (7,8) at their bottom end.

The apparatus appears as follows:

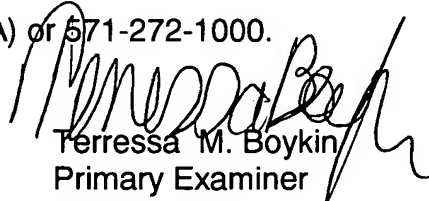


Each of the references discloses a method for removing volatile components from a thermoplastic resin via an apparatus and method as claimed by applicants. Since the disclosed description of the apparatus and method are expressed differently in some parts, i.e. direction of angle of flow etc., they nevertheless appear to overlap those claimed by applicants. In view of the above, there appears to be no significant difference between the reference(s) and that which is claimed by applicant(s). Any differences not specifically mentioned appear to be conventional. Consequently, the claimed invention cannot be deemed as novel and accordingly is unpatentable.

**Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Terressa M. Boykin whose telephone number is 571 272-1069. The examiner can normally be reached on Monday-Thursday 10-5:30 Friday (work at home).

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
Terressa M. Boykin  
Primary Examiner  
Art Unit 1711

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